Panasonic

HDTV

Technical Information

1/2″ High Definition Studio VTR
AU-HD1500

Preliminary

Even before the advent of full-scale broadcasting, High Definition TV system is already available at special events, art galleries, and educational institutions. The 1/2″ UNIHI VTR offers 63-minute recording and playback of high definition video. The AU-HD1500 is a High Definition 1/2″UNIHI VTR that features improved power efficiency in a smaller, lighter package, while retaining the proven reliability of Panasonic's preceding model which has achieved an industry-leading record of installations in Japan. It is easy to move and install, for practical and versatile recording, editing, production and presentation of High Definition video programs.

UNIHI is the name given to the High Definition 1/2-inch cassette tape format and compact High Definition VTR jointly developed by NHK Engineering Service and 10 Japanese manufacturers.

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Compact, Lightweight, Low Power Consumption

■Single-Unit 6U Size, Rack Mountable

Thanks to expertise gained in the development of the D-3 (1/2-inch digital) VTR, Panasonic has packed the signal processing circuitry into new IC and LSI chips, while streamlining the transport mechanism. The result is a size reduction of about 60% and weight reduction of about 55% (compared to the AU-HD1055). This compact, single-unit design is mountable in a 6U size 19-inch rack space.

■Low Power Consumption

At about 400W, power consumption has been reduced to better than 1/3 that of the preceding model, a benefit of particular importance in outdoor recording applications since it allows smaller generators to be used.

63-Minute High Definition Video Recording

■High Quality Baseband Recording

For the video signal, the system employs analog baseband recording on metal tape. Using high performance laminated heads separately optimized for recording and playback, the system achieves extended bandwidth of 20MHz for the luminance (Y) component and 7MHz for the chrominance (P_B/P_R) component. This assures the full splendor of High Definition picture quality.

■Outstanding PCM 4-Channel Sound Quality

Four channels of digital sound are provided, compatible with the High Definition TV format. UNIHI attains frequency response of 20 – 20,000Hz and dynamic range of 85dB or better, using 48kHz sampling, 16-bit quantization and 4-channel recording with rotary heads. There is also an additional single linear audio track.

■63-Minute Recording

Recording of up to 63 minutes is possible on 1/2-inch cassettes of approximately VHS size. This convenient format provides sufficient program time for software production suitable for High Definition theater entertainment.

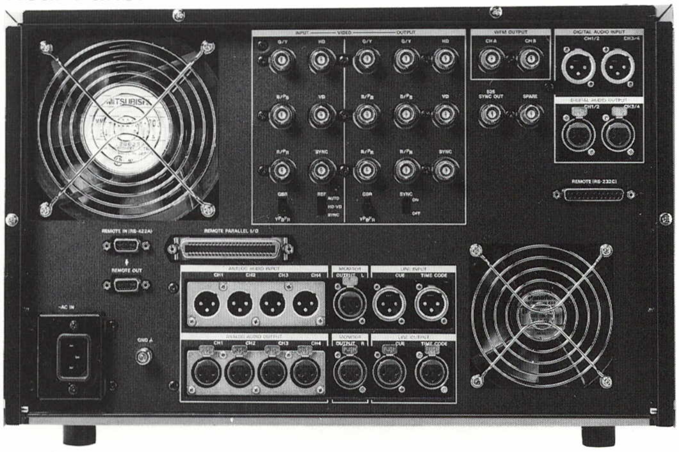
Editing/Presentation Facilities

- Built-in Time Code Generator/Reader
- 9-pin (RS-422A) Interface
- RS-232C Interface
- 50-pin Parallel Remote Terminal
- Built-in 1:1 Automatic Editing Function
- Multi-Cue Function
- Cue Remote Function

Practical and Convenient

- Real-Time Playback Monitoring
- 20X High Speed Search
- Large Menu Display

Rear Panel



Specifications

General

Power supply:	100V AC, 50 to 60Hz
Power consumption:	400W
Recording system:	4 rotary heads; 2-channel helical scanning system, 5400 rpm
Tape:	UNIHI standard 1/2″ High Definition cassette metal tape
Recording time:	63 minutes
Dimensions:	291(H) × 437(W) × 630(D) mm 265 × 424 × 630 mm at rack mounting
Weight:	45 kg

Video

Television format:	HDTV: 1,125 lines, 60 fields
Modulation system:	Y/C time compressed multiplexing (C line sequential) 2-channel FM recording
Bandwidth:	Y: 20 MHz C (P_B, P_R): 7 MHz
S/N ratio:	Y: Better than 41 dB, C: Better than 47 dB

Audio

PCM (4-channel, 48kHz, 16 bit)	
Frequency response:	20 to 20,000 kHz
Dynamic range:	More than 85 dB
Distortion:	Less than 0.05% (at 1 kHz standard input level)
Linear (CH1)	
Frequency response:	50 to 15,000 kHz
S/N ratio:	Better than 47 dB
Distortion:	Less than 2% (at 1 kHz standard input level)
Wow and flutter:	Less than 0.2%

Functions

Editing functions:	Video: assemble, insert (automatic manual) Audio: assemble, insert (4-CH at a time, automatic, manual)

Remote control:	Parallel control signal: 50-pin Serial control signal: 9-pin RS-422A, 25-pin RS-232C
Time code recording/reading:	Built-in time code generator/reader
Cue signal:	
Digital audio serial interface:	Based upon AES/EBU format

Input Signal

Video:	
Y:	1 Vp-p/75 ohms (BNC), including tri-level sync signal
P_B, P_R:	0.7Vp-p/75 ohms (BNC), including tri-level sync signal Y, P_B, P_R or GBR switch selectable
G,B,R:	1 Vp-p/75 ohms (BNC), including tri-level sync signal
Audio:	
Main audio:	+4dBm, 4CH (XLR3P, male)
Auxiliary audio:	+4dBm, 1CH (XLR3P, male)
Time code:	2.4 ± 1.4 Vp-p (XLR 3P, male)
Sync signal:	Tri-level sync: 0.6 Vp-p/75 ohms (BNC)

Output Signal

Video:	
Y:	1 Vp-p/75 ohms (BNC), including tri-level sync signal
P_B, P_R:	0.7Vp-p/75 ohms (BNC), including tri-level sync signal Y, P_B, P_R or GBR switch selectable
G,B,R:	1 Vp-p/75 ohms (BNC), including tri-level sync signal
Audio:	
Main audio:	+4dBm, 4CH (XLR3P, female)
Auxiliary audio:	+4dBm, 1CH (XLR3P, female)
Monitor out:	+4dBm, 2CH (XLR3P, female); front panel selectable
Time code:	2.4 Vp-p, low impedance (XLR 3P, female)
Sync signal:	Tri-level sync: 0.6 Vp-p/75 ohms (BNC)

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